

Patent Abstracts of Japan

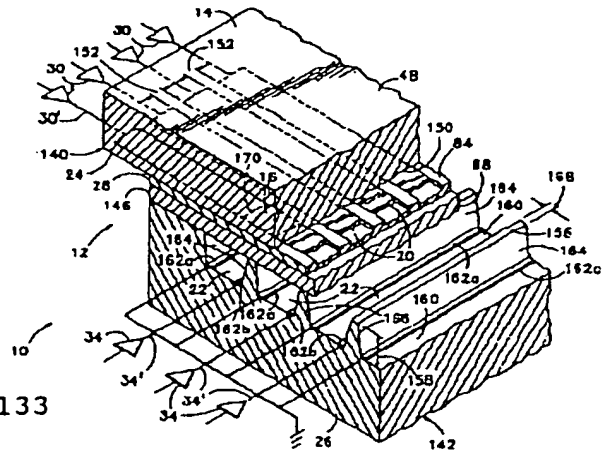
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 PATENTEE : SONY TEKTRONIX CORP
 PATENT DATE: 29-03-1994

INVENTOR : TOOMASU ESU BUZATSUKU

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TITLE : LIQUID CRYSTAL FLAT PANEL
 DISPLAY DEVICE



ABSTRACT : PURPOSE: To provide an electrooptic address assigning device with decreased crosstalk effect by incorporating a liquid crystal material showing such frequency reactivity that the dielectric anisotropy for the signal frequency higher than the critical frequency is almost zero.
 CONSTITUTION: The line electrode 20 is formed on the principal plane of a non-conductive light transmitting substrate 24, and a groove 22 is formed on the principal plane of the second nonconductive light transmitting substrate 26. A layer 28 consisting of a frequency-reactive electrooptical material such as two-frequency nematic liquid crystal is interposed between a first nonconductive light transmitting substrate 24 and a second nonconductive light transmitting substrate 26. In this constitution, it is preferable that the dielectric anisotropy $\Delta\epsilon$ of the frequency-reactive liquid crystal material : the layer 28 is rather small for the signal frequencies higher than the specific frequency f_{th} , and more preferably, almost zero. Thereby, the frequency-reactive liquid crystal material does not substantially react with signals having higher frequencies than the critical frequency. This device includes a data driver which sends reversed data signal in a first period and non-reversed data signal in the second period to each picture element.

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04445181 **Image available**
LIQUID CRYSTAL FLAT PANEL DISPLAY DEVICE

PUB. NO.: 06-089081 [JP 6089081 A]
PUBLISHED: March 29, 1994 (19940329)
INVENTOR(s): TOOMASU ESU BUZATSUKU
APPLICANT(s): SONY TEKTRONIX CORP [417165] (A Japanese Company or
Corporation), JP (Japan)
APPL. NO.: 05-085609 [JP 9385609]
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March 19, 1992 (19920319)
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ABSTRACT

PURPOSE: To provide an electrooptic address assigning device with decreased crosstalk effect by incorporating a liquid crystal material showing such frequency reactivity that the dielectric anisotropy for the signal frequency higher than the critical frequency is almost zero.

CONSTITUTION: The line electrode 20 is formed on the principal plane of a non-conductive light transmitting substrate 24, and a groove 22 is formed on the principal plane of the second nonconductive light transmitting substrate 26. A layer 28 consisting of a frequency-reactive electrooptical material such as two-frequency nematic liquid crystal is interposed between a first nonconductive light transmitting substrate 24 and a second nonconductive light transmitting substrate 26. In this constitution, it is preferable that the dielectric anisotropy $\Delta\epsilon$ of the frequency-reactive liquid crystal material in the layer 28 is rather small for the signal frequencies higher than the specific frequency f_{th} , and more preferably, almost zero. Thereby, the frequency-reactive liquid crystal material does not substantially react with signals having higher frequencies than the critical frequency. This device includes a data driver which sends reversed data signal in a first period and non-reversed data signal in the second period to each picture element.